PATENT ABSTRACTS OF JAPAN

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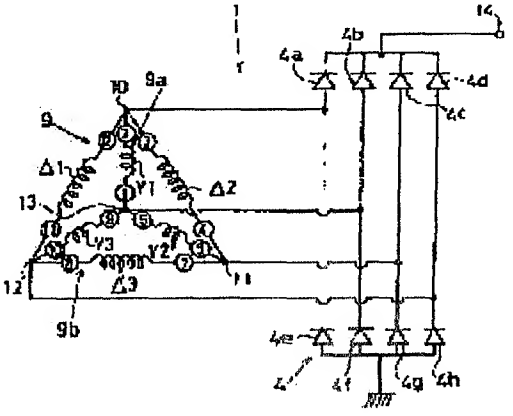
(71) Applicant : NIPPONDENSO CO LTD
(72) Inventor : SHICHIJIYOU AKICHIKA

(54) ELECTRIC ROTATING MACHINE

(57) Abstract:

URPOSE: To provide an electric rotating machine in which lectromagnetic noise is reduced without complicating the inding work for the stator core.

ONSTITUTION: A stator core to be applied with a stator coil 9 as an inner periphery provided with 36 slots for containing he stator coil 9 wherein the number of slots per pole per hase is set at 1. The stator coil 9 comprises a first winding ircuit 9a comprising three first windings Y1, Y2, Y3 onnected in star, and a second winding circuit 9b comprising hree second windings Δ1, Δ2, Δ3 connected in delta and onnected in parallel with the first winding circuit 9a. The irst winding circuit 9a employs full-pitch winding having oil side interval of electric angle π, whereas the second inding circuit 9b employs fractional pitch winding having oil side interval of electric angle 2π/3.



LEGAL STATUS

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.ween Rota 2 and the stator 3 as a result -- there is nothing -- electromagnetism -- an ambient noise [-like] can be luced moreover -- above -- electromagnetism -- since the number of slots of ******** can be set to 1 by combining d coil circuit 9b by which the short pitch winding was carried out to 1st coil circuit 9a by which the full pitch nding was carried out when decreasing an ambient noise [-like], the coil work to a stator core 8 does not become mplicated like before (the number of slots of ******** is 2)

)10] By having connected 2nd coil circuit 9b by which connection was carried out to 1st coil circuit 9a by which nnection was carried out to Y form, and delta form in this example so that the vector diagram synthesis summit ght be in agreement, as shown in drawing 1 the [the 1st terminal 10 of 1st coil circuit 9a and 2nd coil circuit 9b, the d terminal 11, the 3rd edge, and] -- the neutral point 13 of 1 coil circuit 9a is connectable with the single three phase :tifier circuit 4 the [moreover,] -- the exciter output current can be freely taken out from the neutral point 13 of 1 il circuit 9a Furthermore, when 2nd coil circuit 9b made the coil side spacing the short pitch winding of electrical gles 2pi/3, third-harmonic-wave magnetomotive force of 2nd coil circuit 9b can be set to 0. It can follow, the third-rmonic-wave circulating current generated in delta form connection circuit by carrying out connection of the 2nd coil :cuit 9b to delta form can be lost, and the temperature rise by this circulating current can be stopped.

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ffect of the invention] the rotation electrical machinery of this invention -- the number of slots of ******** -- ** -- ithout coil work becomes complicated by having wound the 1st coil circuit by the full pitch winding, and having ound the 2nd coil circuit to the stator core to carry out at intervals of the coil side of electrical angles 2pi/3 -- ectromagnetism -- an ambient noise [-like] can be reduced

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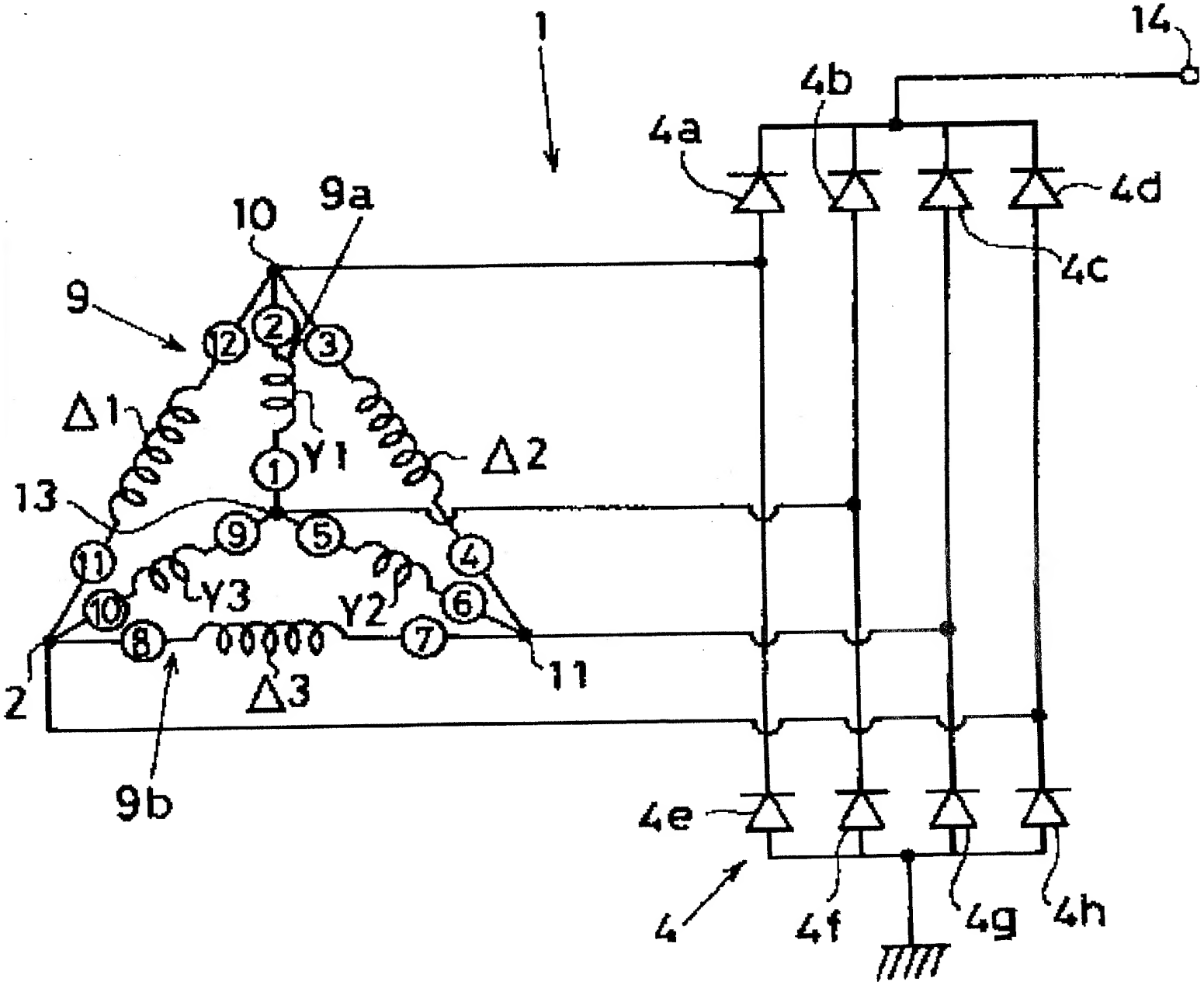
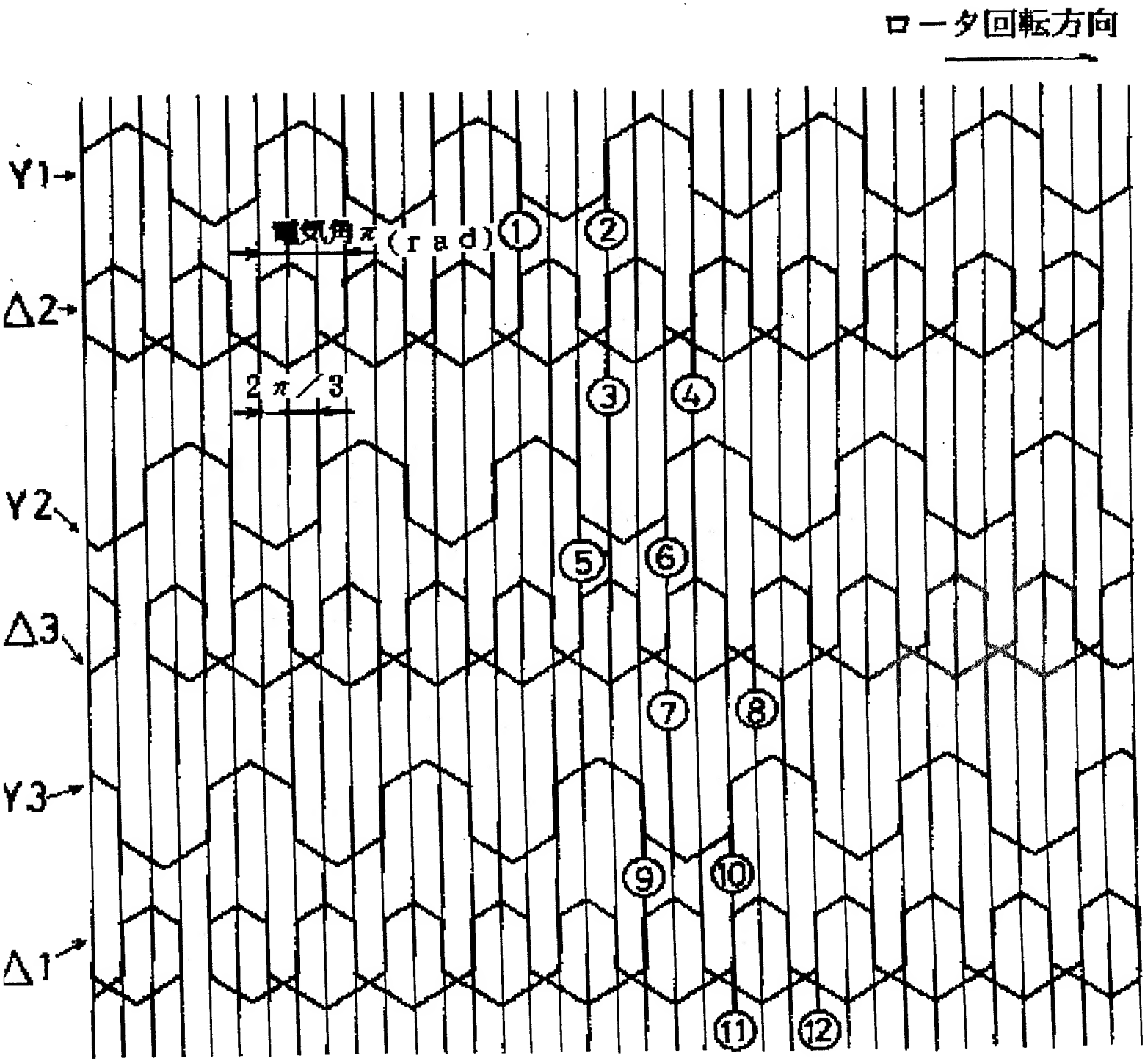
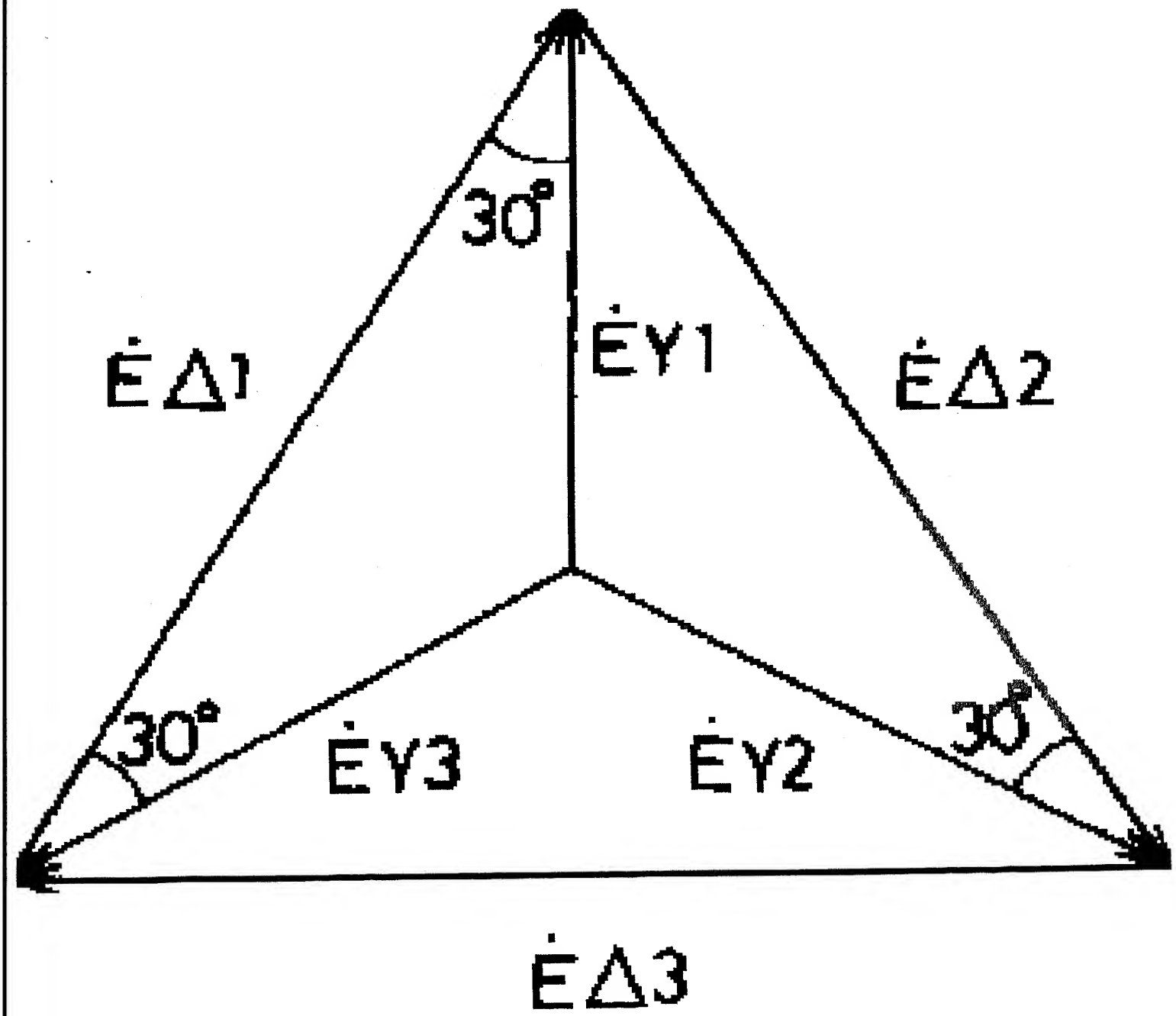
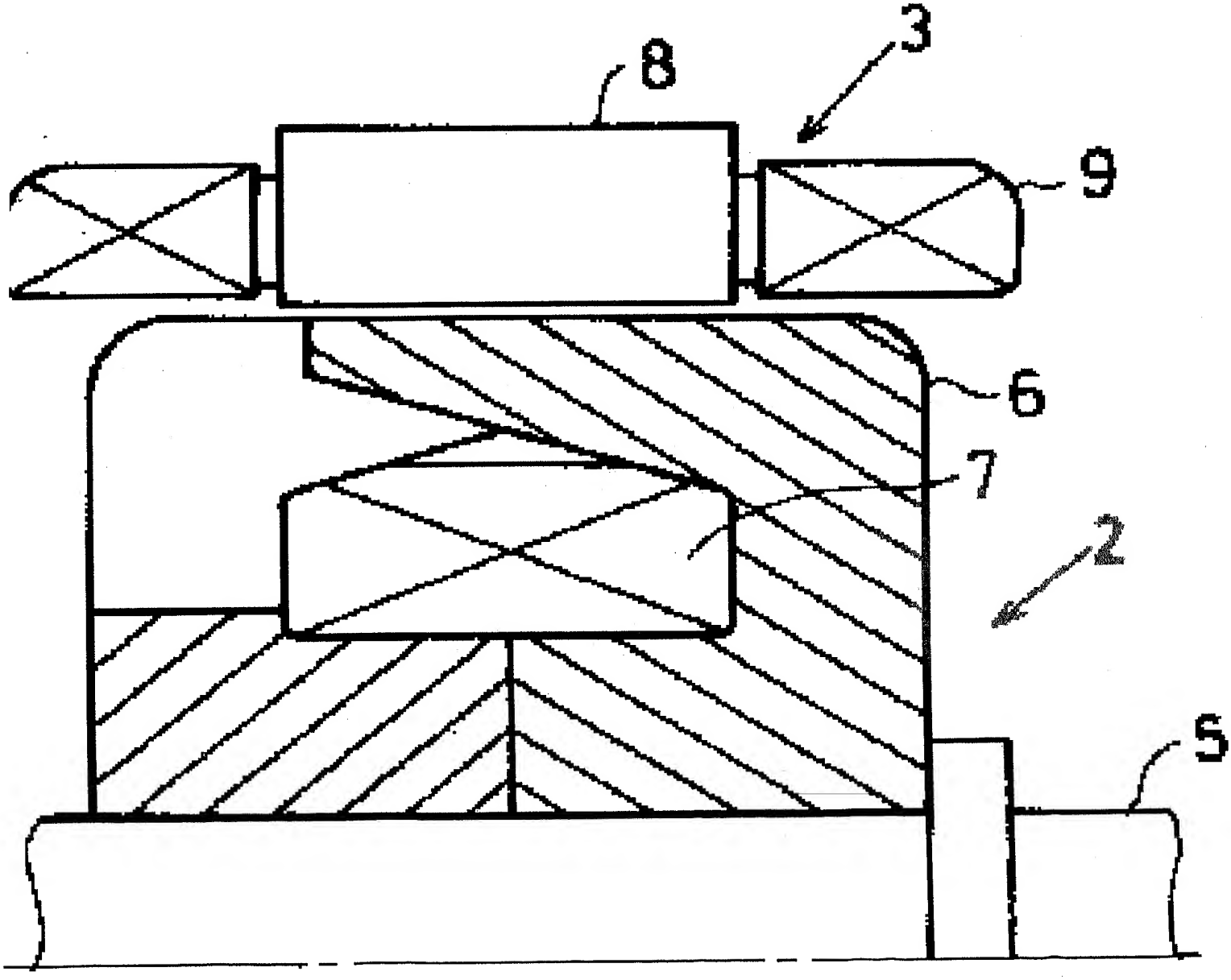
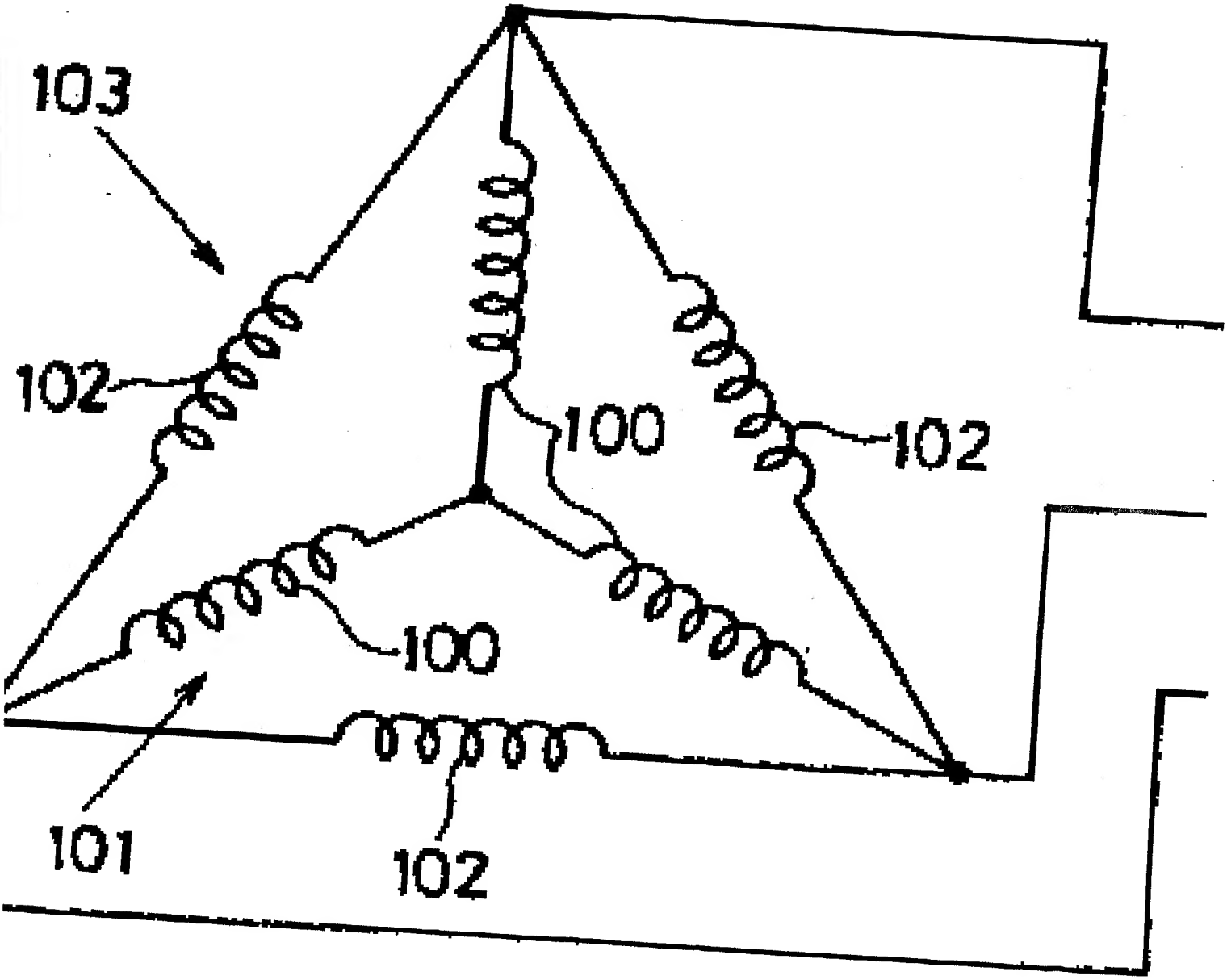
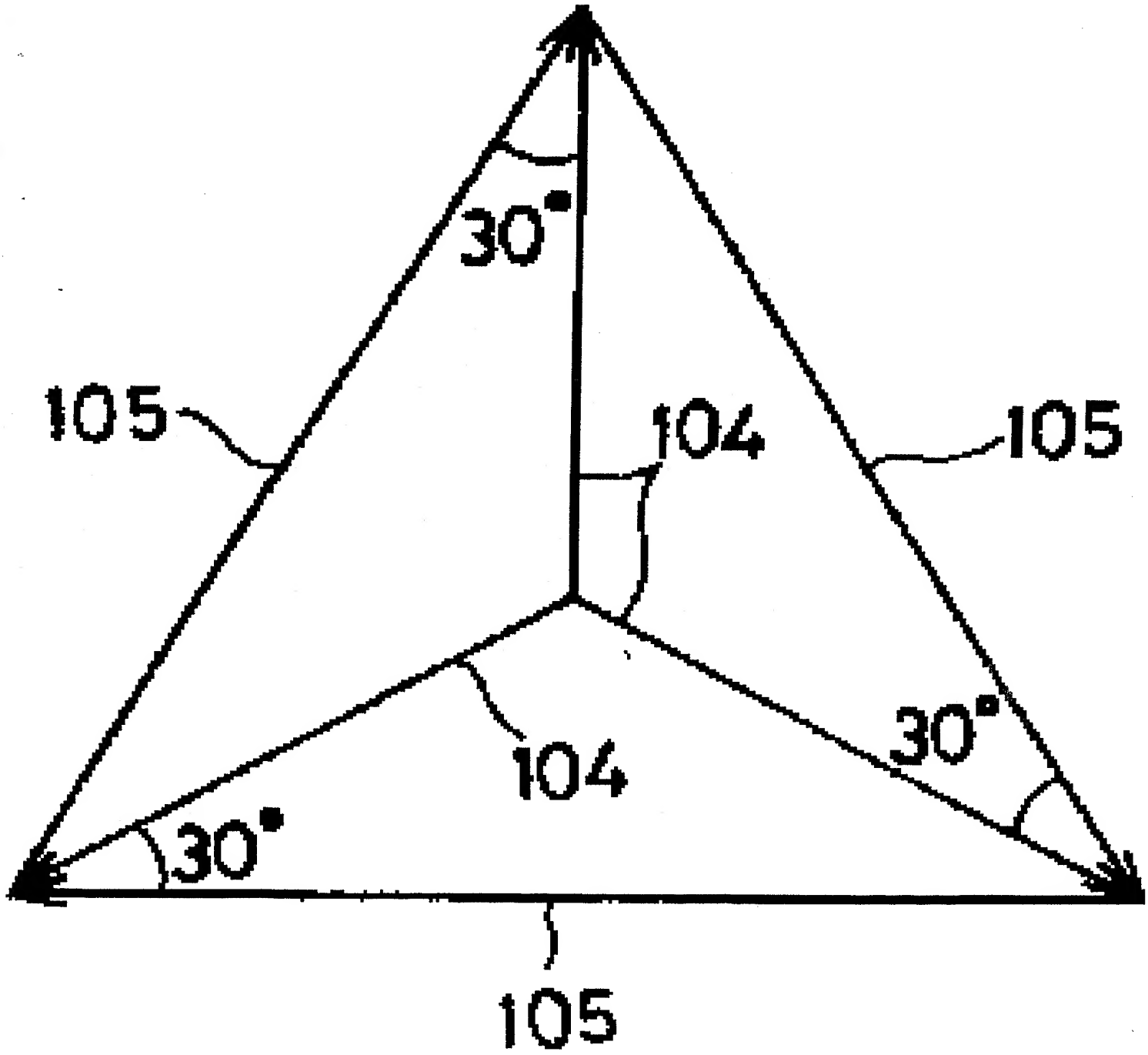

1
14
4b
4a
4d
4c
10
9a
9
12
2
3
Δ1
Y1
Δ2
13
1
9
5
4
11
10
Y3
Y2
6
8
7
11
2
Δ3
9b
4e
4
4f
4g
4h


ロータ回転方向
Y1
Δ2
Y2
Δ3
Y3
Δ1
電気角π（rad）
2π／3
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫


30°
ĖΔ1
ĖY1
ĖΔ2
30°
ĖY3
ĖY2
30°
ĖΔ3


8
3
9
6
7
2
5


103
102
100
102
100
101
102


30°
105
104
105
104
30°
30°
105

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim]
[Claim 1] Connection of the 1st coil circuit which carried out connection of the 1st three coil to Y form or delta form, and the 2nd three coil is carried out to Y form or delta form. Rotation electrical machinery characterized by having had the 2nd coil circuit linked to the aforementioned 1st coil circuit and the parallel, having wound the aforementioned 1st coil circuit by the full pitch winding to the stator core which sets the number of slots of ******** to 1, and a coil side spacing winding the aforementioned 2nd coil circuit by the short pitch winding of electrical angles 2pi/3.
[Claim 2] The aforementioned 1st coil circuit and the aforementioned 2nd coil circuit are the rotation electrical machinery of the claim 1 publication characterized by carrying out connection so that the vector diagram synthesis summit of each 1st aforementioned coil and each 2nd aforementioned coil may be in agreement.
[Claim 3] Rotation electrical machinery of the claim 1 publication characterized by having carried out connection of the aforementioned 1st coil circuit to Y form, and carrying out connection of the aforementioned 2nd coil circuit to delta form.

[Translation done.]